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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,290

12/12/2003

Tetsuya Shigeta

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EXAMINER

SHERMAN, STEPHEN G

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,290

Applicant(s)

SHIGETA ET AL.

Examiner

Stephen G. Sherman

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagai (US 2002/0044105).

Regarding claim 1, Nagai discloses a display driving apparatus comprising:

a video signal processing section (Figure 1A, items 11, 15 and 19 make up a video processing section) which performs signal processing on an input video signal to generate a resultant video signal, the signal processing corresponding to an attribute of the input video signal (Paragraphs [0070] and [0072] explain that the video processing portion 15 performs signal processing on the input video signal based on the sequence control signal.); and

a display panel driving section which drives a display panel on the basis of the resultant video signal, according to a driving sequence corresponding to the signal processing (Figure 1A and paragraph 0072] explain that the driving portion 17 drives the

display based on the signals it receives from the control signal generating portion 16 and the video signal processing portions 15.);

wherein the video signal processing section changes a scheme of the signal processing on the basis of an attribute of the input video signal, and generates a sequence change signal upon changing the scheme (Figure 1A and paragraph [0074] explain that the signal format identification portion 19 receives the signals from the signal processing portions 12 and 13 in order to generate a signal format identification signal on the basis of the scheme to be used.); and

the display panel driving section includes a sequence controller for changing a scheme of the driving sequence on the basis of the sequence change signal (Figure 1A shows that the PDP module portion 14 contain the driving means which consists of the driving portion 17 and the control signal generating portion 16, where the control signal generating portion changes the scheme of the driving sequence on the basis of the signal format identification signal as explained in paragraphs [0074]-[0075].).

Regarding claim 3, Nagai discloses a display driving apparatus according to claim 1.

Nagai also discloses wherein the sequence controller changes the number of sub-fields constituting one field of the video signal on the basis of the sequence change-over signal (Paragraphs [0094]-[0095] explains that either 6 sub-field per frame or 8 sub-fields per frame can be used based on the input video signal identified.).

Regarding claim 4, Nagai discloses a display driving apparatus according to claim 1, wherein the sequence controller changes the number of display pulses assigned to each of the sub-field constituting one field of the video signal, on the basis of the sequence change signal (Paragraphs [0135]-[0138] explain that the control signal generation portion can change the number of sustain pulses per field based on the signal format identification signal.).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai (US 2002/0044105) in view of Nagakubo et al. (JP 2001-346131 A).

Regarding claim 2, Nagai discloses a display driving apparatus according to claim 1.

Nagai also discloses of changing a frame rate on the basis of the attribute of the input video signal (Paragraphs [0133]-[0134] explain that the time to write data, i.e. frame rate, is changed based on the attribute of the input signal.).

Nagai fails to disclose wherein the video signal processing section includes a frame rate converter which converts a frame rate on the basis of the attribute of the input video signal, and the sequence change signal includes information of changing the frame rate.

Nagakubo et al. disclose of a video signal processing section including a frame rate converter which converts a frame rate on the basis of the attribute of the input video signal (Figure 1, 2-3 converter 13 as explained in paragraph [0009] changes the frame rate from 2 to 3 frames, or from 3 to 2 frames, depending on the attribute of the input signal.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to make the video signal processing section taught by Nagai contain a frame rate converter as taught by Nagakubo et al. in order to improve the display quality of a telecine resolution picture.

Regarding claim 4, Nagai and Nagakubo et al. disclose a display driving apparatus according to claim 2.

Nagai also discloses wherein the sequence controller changes the number of display pulses assigned to each of the sub-field constituting one field of the video signal, on the basis of the sequence change signal (Paragraphs [0135]-[0138] explain that the control signal generation portion can change the number of sustain pulses per field based on the signal format identification signal.).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Haginoya (US 2003/0122741) discloses a frequency monitoring circuit for supplying a signal for selecting a sequence data set to a sequence storage circuit when a frequency of a vertical synchronization signal is higher than a predetermined frequency in order to generate a shortened sub-field sequence.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

11 July 2006

AMR A. AWAD
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a stylized flourish at the end.